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10/665,749	09/19/2003	Robert Leah	5577-281	6984

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EXAMINER	
TERMANINI, SAMIR	
ART UNIT	**PAPER NUMBER**
2178	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/665,749	LEAH ET AL.	
	Examiner	Art Unit	
	Samir Termanini	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 November 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *N/A*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

BACKGROUND

1. This Office Action is responsive to the following communications: Applicants' amendment filed on 11/01/2006.

2. Claims 1-12 are pending in this case. The Applicant has amended claims 1, 11, and 12, where claims: 1, 8, 11, and 12 are still in independent form.

3. Applicant has amended the Specification in response to the objection cited by the Examiner in the previous Office Action (dated 8/1/2006) with regard to an embedded hyperlink. The objection is withdrawn in view of the amendment.

4. Applicant has amended the Drawings in response to the objection cited by the Examiner in the previous Office Action (dated 8/1/2006) with regard to element 260 in Fig. 3 of the Drawings. The objection is withdrawn in view of the amendment.

5. Applicants' arguments concerning the Examiner's rejections of claims 1-12, made under 35 U.S.C. §102(e) in the previous Office Action (dated 8/1/2006) have been fully considered but they are not persuasive.

CLAIM REJECTIONS - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

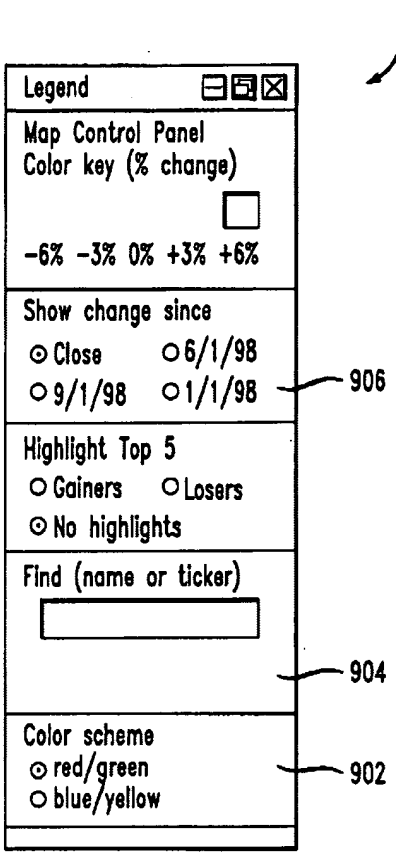
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in

> the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 1-12** are rejected under 35 U.S.C. 102(e) as being anticipated by *Wattenberg et al.* (US 6,583,794 B1).

As to independent **Claim 1**, *Wattenberg et al.* teach a method of displaying data from a data set as a tree map visualization (*See* Figs. 2B through 4,) comprising: Identifying data elements (identifying: "to indicate", "utilizing", and "refer to", e.g. column 3, lines 45, 48, 52, and 54, *inter alia*, stock price changes, see column 3, lines 40 - 60) in the data set to be highlighted ("Find control 904 enables the user to automatically highlight a particular stock or company by typing its name or stock ticker symbol without having to" column 16, lines 25-30) and generating a tree map visualization (*see* also Figs. 2B through 4) based on the data set where the tree map visualization comprises a plurality of bounding boxes ("...treemap comprises a space that is divided into multiple rectangular regions...." see column 2 lines 12-15), each bounding box having a color associated therewith ("wherein each company region is represented by a color," clm. 1; *See also* "to graphically convey to the user...through...color," column 3, lines 35 – 36) and a location of bounding boxes corresponding to the identified data elements are highlighted, as shown in Fig. 5:

FIG. 9



Note: "Find control 904 enables the user to automatically highlight a particular stock or company by typing its name or stock ticker symbol without having to visually locate it on the interface." (column 16, lines 25-30)(emphasis added). This means that data elements need to be identified in order for them to be highlighted. Fig. 9 shows one (of many) types of identification, namely: the identification of gainers or losers. Furthermore, identification of gainers or losers, are still further identified from: the identification of the "Top 5."

Wattenberg et al. further teach that highlighting occurs therein by giving a greater color saturation to the identified data elements. Conversely, those not in the top 5 are not highlighted thereby resulting in a greater color saturation in the identified data elements, (see Fig. 9, above) in comparison to the saturation of other bounding boxes (not in the top 5, Fig. 9; *See also* e.g. lighter shading for positive stock price change, *see* column 3, lines 40 – 60; *See also* discussion about using multiple shades of one color in column 3 at lines 49-54, *See also* column 17, lines 36-40, "...one color indicating...changes...")(emphasis added) that are not to be

highlighted, even if a non-highlighted bounding box may otherwise have the same color ("...utilizing multiple intensities or shades of [of a color, for in this example:] green..." column 10, lines 10-21) as a corresponding highlighted bounding box ("represented by a color corresponding to a characteristic of the corresponding company, such as market performance." Abstract)(emphasis added).

As to dependent **Claim 2**, *Wattenberg et al.* further teach increasing the color saturation of bounding boxes of identified elements (darker shading, *see* column 3, lines 47 – 49).

As to dependent **Claim 3**, *Wattenberg et al.* further teach decreasing color saturation of bounding boxes of elements that are not identified (lighter shading, see column 3, lines 47 – 49; *See also* column 16, lines 19–23, ability to modify color scheme; *see also* column 10, lines 10–22, using black for a neutral performance).

As to dependent **Claim 4**, *Wattenberg et al.* further teach identifying data elements in the data set to be highlighted by identifying data elements (identifying: "to indicate", "utilizing", and "refer to", e.g. column 3, lines 45, 48, 52, and 54) based on a data value of the data elements that is not utilized in generating the tree map ("...value used to determine color of each region [is based on] any other criteria..., *see* column 15, lines 20-29).

As to dependent **Claim 5**, *Wattenberg et al.* further teach identifying data elements in the data set to be highlighted by identifying data elements based on metadata associated with the data elements. (identifying: "to indicate", "utilizing", and "refer to", e.g. column 3, lines 45, 48, 52, and 54; e.g. performance value "...used to determine color of each region...," *See* column 15, lines 19-21).

As to dependent **Claim 6**, *Wattenberg et al.* further teach identifying data elements in the data set ("to indicate," "utilizing," and "refer to," e.g. column 3, lines 45, 48, 52, and 54) to be highlighted is based on a dynamically determined criteria ("Stock price/Stock movement," column 10, lines 17-21; see also "patient conditions," column 17, lines 61-64; see also "change in sales," column 17, lines 61-64; see "performance of students," column 18, lines 9-14; "monitor a corporate budget," column 18, lines 14-15).

As to dependent **Claim 7**, *Wattenberg et al.* further teach identifying data elements in the data set ("to indicate," "utilizing," and "refer to," e.g. column 3, lines 45, 48, 52, and 54) to be highlighted (e.g. Fig. 9 shows the "Top 5 Static" of either gainers or losers) is based on a statically defined criteria ("Yet another part may provide an indication as to what features the particular product has." column 17, lines 45-50; also note: the bounding box can also be highlighted by statically defining its name, column 16, lines 18-29).

As to independent **Claim 8**, *Wattenberg et al.* teach a tree map visualization displayed on a display device (display screen 20), comprising: a plurality of bounding boxes ("...treemap comprises a space that is divided into multiple rectangular regions..." *see* column 2 lines 12-15), each bounding box having a color associated therewith ("through the of...color..." column3, lines 34-37), the color being based on a data value associated with a corresponding bounding box; (*inter alia*, "...the color corresponds to its recent performance..." column3, lines 40-44) and at least one bounding box having a color saturation greater than a color saturation of another of the plurality of bounding boxes that has the same color box (e.g. "...utilizing multiple

intensities or shades of [of a color, for in this example:] green..." column 10, lines 10-21) as the at least one bounding box so as to highlight the at least one bounding box ("[u]tilizing multiple shades of green [to indicate] price changes" results in greater saturation of another bounding box whenever there is a difference in price change, *see* column 3, lines 47 – 54; *see also* e.g. Fig. 2B showing differences).

As to dependent **Claim 9**, *Wattenberg et al.* further teach at least one bounding box corresponding to a predefined element of a data set used to generate the tree map visualization ("In one embodiment, the size of a region corresponds to the market capitalization of the company represented by that region and the color corresponds to its recent performance from a predetermined date." *see* column 3, lines 40-44).

As to dependent **Claim 10**, *Wattenberg et al.* further teach at least one bounding box corresponding to an element of a data set used to generate the tree map visualization that is dynamically selected ("change since" control 906) based on data associated with the element that is not used to generate a size or color of a bounding box of the tree map visualization. (e.g. user-selected periods of time, column 16, lines 22-25).

As to independent **Claim 11**, *Wattenberg et al.* teach a system for displaying data from a data set as a tree map visualization, comprising: means for identifying data elements in the data set to be highlighted (i.e. the bounding box can be highlighted by statically defining its name, *see* column 16, lines 18-29; identifying: "to indicate", "utilizing", and "refer to", e.g. column 3, lines 45, 48, 52, and 54); and means for generating a tree map visualization based on the data set where

visualization comprises a plurality of bounding boxes ("a plurality of rectangular regions" column 8, lines 30-40), each bounding box having a color associated therewith ("represented by a color corresponding to a characteristic of the corresponding company, such as market performance." Abstract) and a location of bounding boxes corresponding to the identified data elements are highlighted by having a greater color saturation in comparison to the saturation of other bounding boxes (e.g. lighter or darker shading for positive or negative stock price change, *see* column 3, lines 40 – 60; *See also* discussion about using multiple shades of one color in column 3 at lines 49-54, *see also* column 17, lines 36-40, "...one color indicating...changes..."; Note that generating means "to graphically convey to the user," *see* column 3, lines 35 – 36) that are not to be highlighted, even if a non-highlighted bounding box may otherwise have the same color (e.g. "...utilizing multiple intensities or shades of [of a color, for in this example:] green..." column 10, lines 10-21) as a corresponding highlighted bounding box ("represented by a color corresponding to a characteristic of the corresponding company, such as market performance." Abstract).

As to independent **Claim 12**, this Claim differs from Claim 1 only in that claim 1 is a method claim whereas claim 12 is an apparatus claim. Thus, this claim is analyzed as previously discussed with respect to claim 1 above.

RESPONSE TO ARGUMENTS

8. Applicants' arguments, see p. 6, filed 11/1/2006, with respect to the Objection cited by the Examiner in the previous Office Action (dated 8/1/2006), to the

Specification with regard to an embedded hyperlink have been fully considered and are persuasive. Accordingly, the Objection to the specification has been withdrawn.

9. Applicants' arguments, see p. 6, filed 11/1/2006, with respect to the Objection cited by the Examiner in the previous Office Action (dated 8/1/2006), to the Drawings with regard to element 260 in Fig. 3 have been fully considered and are persuasive. Accordingly, the Objection to drawings has been withdrawn.

10. In response to *Section 35 USC §102(e)* (starting on p. 6) of Applicants' REMARKS, directed to the Rejections made under 35 U.S.C. §102(e). Applicants' arguments have been fully considered but they are not persuasive.

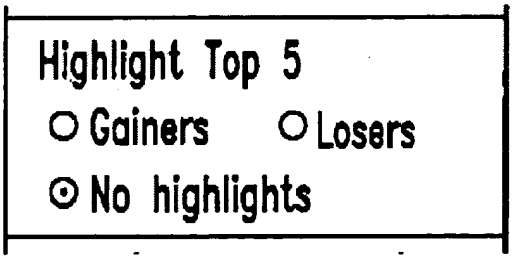
In response to Applicants' argument:

> Moreover, the '794 patent is completely silent as to the use of color saturation to highlight bounding boxes... (p. 7).

Wattenberg et al. while referring to Fig. 9, state:

> Find control 904 enables the user to automatically highlight a particular stock or company... (column 16, lines 20-30).

Additionally, *Wattenberg et al.* give yet another example of the use of color saturation to highlight bounding boxes in Fig. 9 (only a portion is reproduced):



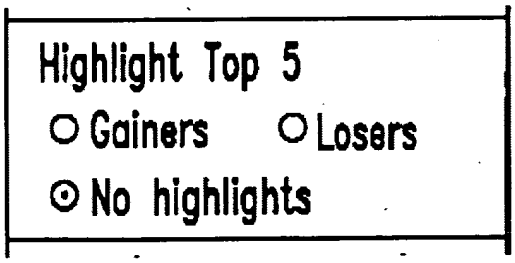
Wattenberg et al., Fig 9.

There is no sensible doubt that this portion of Fig. 9 clearly elucidates to one of ordinary skill in the art – highlighting bounding boxes in a tree-map.

In response to Applicants' argument:

> ...it appears to the applicants' that the Examiner is inappropriately attempting to rely on the phrases "...the color may indicate a positive or negative price change...." (emphasis added)[6] , "...*utilizing* multiple intensities or shades of green and red to indicate different levels of price changes ...." (emphasis added)[7], and "...green or lighter shading can *refer* to a positive stock price change and red or darker shading can refer to a negative stock price change." (emphasis added)[8] out of context. These passages do not teach identifying data elements that are to be "highlighting" as claimed. (see p. 8).

Applicant simply recites all of the methods contemplated and taught by *Wattenberg et al.* for accomplishing highlighting. More specifically, the Top 5 Gainers and the Top 5 Losers are data elements identified by different – price changes – as applicant has repeatedly and strenuously emphasized. *Wattenberg et al.* show in figure Fig. 9, the "Top 5" on either the negative or positive side can be highlighted *via* color intensity as applicant has recognized above.



Wattenberg et al., Fig.9

Where, "Correspondingly...lighter shading can refer to a positive stock price change [GAINERS, Fig 9] and...darker shading [LOSERS, Fig. 9]can refer to a negative stock price change" (column 3, lines 47-49).

In response to Applicants' argument:

> ...in the '794 patent, if you change the shade of a bounding box, you are also suggesting a change in the value of the underlying data, rather than highlighting the bounding box. (see p. 9).

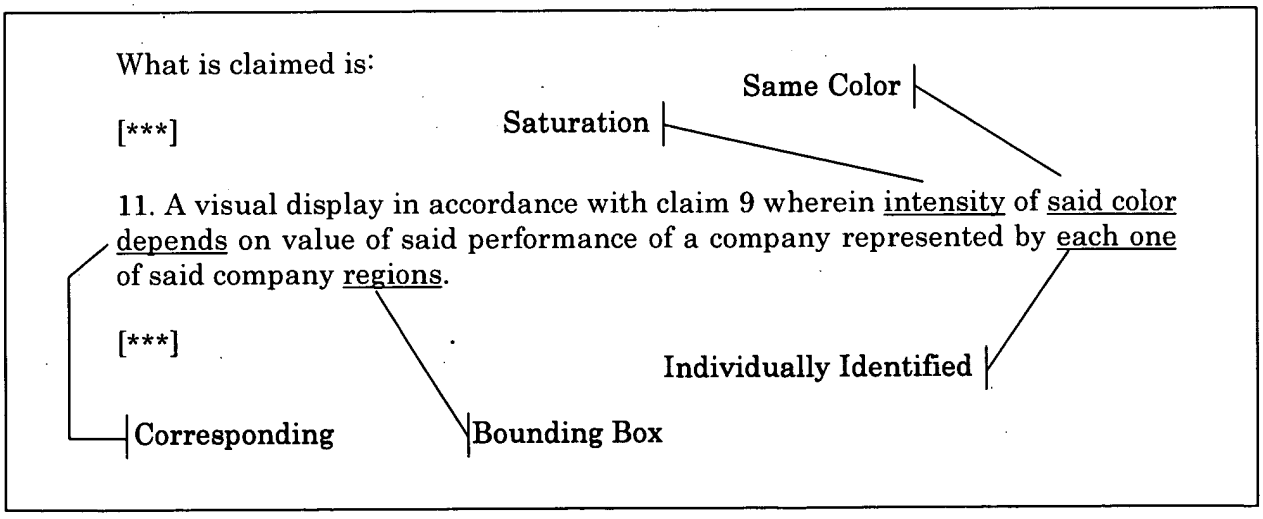
Nothing in *Wattenberg et al.* intimates changing the underlying value of the data.

> Similarly, the user may modify the `show change since` control 906 in order to analyze the performance of a stock over varying selected periods of time. Find control 904 enables the user to automatically highlight a particular stock or company by typing its name or stock ticker symbol without having to visually locate it on the interface.("" column 18, lines 15-30)(emphasis added).

In response to Applicants' argument:

> While the general concept of highlighting is alluded to, there is no teaching or suggestion that the highlighting is performed by making a location of bounding boxes corresponding to identified data elements that are to be highlighted have a greater color saturation in comparison to the saturation of other bounding boxes that are not to be highlighted, even if a non-highlighted bounding box may otherwise have the same color as a corresponding highlighted bounding box. (See p. 9).

The examiner respectfully disagrees. Not only is there a teaching, *Wattenberg et al.* claim precisely what Applicants alleges is not taught:



In response to Applicants' argument:

> Still further, there is no teaching or suggestion of identifying data elements in the data set based upon dynamically determined criteria as recited in claim 6....(See p. 10).

Here are just a few examples of dynamically determined criteria expressly taught by *Wattenberg et al.* :

(1) Stock price/Stock movement, see column 10, lines 17-21
(2) patient conditions, see column 17, lines 61-64;
(3) change in sales, see column 17, lines 61-64;
(4) performance of students, see column 18, lines 9-14; and
(5) monitor a corporate budget, see column 18, lines 14-15.

In response to Applicants' argument:

> Still further, there is no teaching or suggestion of identifying data elements in the data set based upon ...or identifying data elements in the data set to be highlighted based on a statistically defined criteria as recited in claim 7. (See p. 10).

Here is an example of a statically determined criteria expressly taught by *Wattenberg et al.* :

> "Yet another part may provide an indication as to what features the particular product has." column 17, lines 45-50)(emphasis added).

CONCLUSION

11. The following prior art is made of record and, while not relied upon, is considered pertinent to Applicants' disclosure:

[1] *Ben Shneiderman*, Treemaps for space-constrained visualization of hierarchies, http://www.cs.umd.edu/hcil/treemap-history/index.shtml, (1998-2006).

[2] *Smith et al.* (2004/0263513 A1) for teaching a treemap engine.

[3] *Bauernschmidt et al.* (US 2004/0168115) for teaching user defined treemap reports.

[4] *Baker et al.* (US 5,581,797 A), inter alia, for teaching treemap highlighting and zooming.

12. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samir Termanini whose telephone number is (571) 270-1047. The Examiner can normally be reached from 9 A.M. to 4 P.M., Monday through Friday (excluding alternating Fridays).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

STEPHEN HONG
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